An Evaluation of California Community College Transfer Rates

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Objectives and Goals

- Explore an improved methodology for measuring transfer performance.
- Report the new statewide and college transfer rates.
- Provide colleges with a starting point for improving transfer performance.
- Help universities to identify the status of their transfer colleges.

Research Questions

- How are the actual transfer rates calculated for the community colleges?

- How can we compute expected transfer rates controlling for college environmental factors?

- How does cluster analysis create peer groups of colleges with transfer rates?

- How can we identify effective transfer practices at the colleges?

Measuring Transfer

Transfer Volume – Number of students that transfer to a 4-year in a particular year.

Transfer Rate – Percentage or ratio of students transferring from a cohort.

Transfer Rate Methodology

Actual Transfer Rates

- Three cohorts of FTF with at least 12 units earned who attempted transfer level math or English

- Transferred to a 4-year institution within 6 years of enrollment (NSC, UC, CSU)

Systemwide Actual Transfer Rates

	1998-99 to 2003-04	1999-00 to 2004-05	2000-01 to 2005-06
Total	40.9%	40.9%	40.7%
Note: Rates based on data from 2007 ARCC Report			

Systemwide – Transfer activity of students in the overall system

Systemwide Transfer Rates by Race/Ethnicity

	1998-99 to 2003-04	1999-00 to 2004-05	2000-01 to 2005-06
Total	40.9%	40.9%	40.7%
White	41.9%	42.0%	41.7%
Asian	53.9%	53.8%	53.9%
Black	33.2%	33.5%	34.0%
Hispanic	30.4%	30.5%	29.9%

Statewide – Transfer activity of students within each college (by college)

Descriptives of Actual Transfer Rates Statewide by College

	1998-99 to 2003-04	1999-00 to 2004-05	2000-01 to 2005-06
N	107	108	108
Mean	39.41%	39.35%	39.23%
Median	38.95%	38.67%	38.56%
Stand Dev	7.54%	7.98%	7.92%
Minimum	13.58%	13.01%	13.02%
Maximum	57.42%	59.20%	58.05%

Transfer Rate Methodology

Expected Transfer Rates

- Factors outside the control of the colleges (exogenous variables).

  - theoretically related to transfer

  - statistically linked to transfer

- Hierarchical regression model to:

  – Identify final set of variables

  – Determine expected transfer rates

Transfer Rate Methodology

Exogenous variables used in the past
- Distance to nearest 4-year
- Student academic preparedness
- County unemployment rate
- County average income
- Percent of students over age of 25

Transfer Rate Methodology

Exogenous variables for this study

- Bachelor of Arts/Sciences Plus Index
  - Represents the education of the service area
  - Proxy for student academic background,
  - As well as income and employment
- Percent of Students over Age of 25

Hierarchical Regression Analysis Summary for the Transfer Rate (2000-01 to 2005-06)

$$\text{Adj. } R^2 = .68 \ (F2, 105) = 108.17, \ p < .0001$$

| Step	Variables	B	Std Error	Std Coeff	Corr
1	(Constant)	54.78	7.54		
	Pct Age25+ (Fall03)	-22.28	10.75	-.20	-.20
2	(Constant)	24.20	4.91		
	Pct Age25+ (Fall03)	-25.76	6.30	-.23	-.20
	BA/BS Plus Index	68.51	4.80	.80	.79

Expected Transfer Rates & Residuals

- Adjusted Predicted Value becomes the Expected Transfer Rate

- Difference of the Expected and Actual Transfer Rate is the Residual

College	Actual Xfer Rate	Expected Xfer Rate	Residual
A	51.57	43.59	7.98
B	28.97	34.42	-5.45

Descriptives of Residuals (Actual-Expected) Statewide by College

	1998-99 to 2003-04	1999-00 to 2004-05	2000-01 to 2005-06
N	107	108	108
Stand Dev	4.60%	4.84%	4.70%
Minimum	-18.83%	-20.41%	-18.98%
Maximum	7.98%	11.20%	9.56%
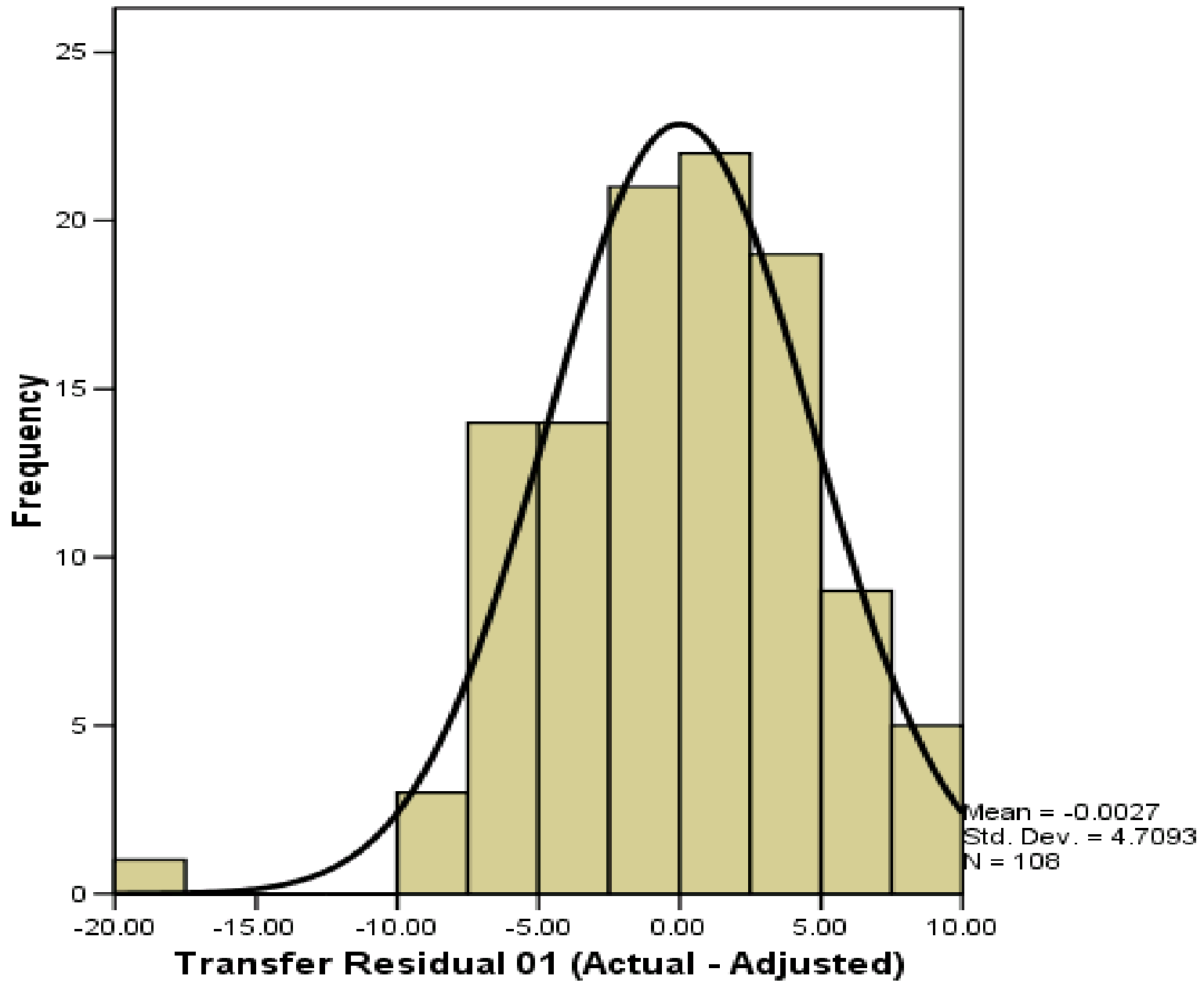
Evaluation of Transfer Rates

- Compare your college's actual transfer rates over time (3 cohorts)
- Evaluate your college's actual transfer rate with the expected transfer rate.
- Compare your college's transfer rate within your peer group.

Peer Grouping of Transfer Rates

- Compare college's transfer rate with with transfer performance of other "like" colleges.
- Prevents simplistic & counterproductive ranking of colleges.
- Possible clues about causal factors related to transfer

Search for Effective Transfer Processes/Factors

- Within each peer group, identify most and least "successful" transfer CC's.

- Hypothesize a process/factor that should affect transfer.

- Compare the most successful transfer CC's to the least successful ones to see how they differ on the hypothetical processes/factors.

Caveats to the Search

- Spurious correlation
- Direction of causation, if any
- Incomplete model
- Interaction between variables

The Peer Grouping Model

- Use peer group comparison in conjunction with other analyses
  - Actual versus expected transfer rates
  - Year-to-year performance
- Peer grouping accounts for the different environments of each college

Cluster Analysis

- Mathematical procedure used for peer grouping
- Cluster analysis has a "method bias" that can affect peer group definitions
  - Proximity measure
  - Clustering algorithm

The Peer Grouping Method

- Regression analysis identified the predictive environmental factors
  - Bachelor Plus Index
  - Percent of Students Age 25+
- Type of proximity measure and clustering algorithm
  - Squared Euclidian Distance
  - Ward's method

The Peer Grouping Results

- Three sets of clustering groups for the 108 colleges
  - Six clusters
  - Seven clusters
  - Eight clusters
- Decision on a practical number of group or cluster numbers

Conclusion

- This study should help analysts who seek to identify effective transfer practices (which could help in terms of state-level policy).

- Each college may benefit by using its peer group as an optional "benchmark" tool.

The Transfer Rate Report

- Transfer Rate Study Report, 2005-06
  http://www.cccco.edu/divisions/tris/rp/rp_doc/Transfer%20Report.pdf

- Transfer Rate Study Tables, 2005-06
  http://www.cccco.edu/divisions/tris/rp/rp_doc/Transfer%20Rate%20Study.xls

Other Transfer Reports (CCC)

- ARCC: Accountability Reporting for the California Community Colleges

  http://www.cccco.edu/divisions/tris/rp/ab_1417/arcc_report_2007.pdf

- CCC Transfers to ISP and OOS (04-05)

  http://www.cccco.edu/divisions/tris/rp/rp_doc/ISP_OOS%20Report%20Final.pdf

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